

## United States Patent and Trademark Office



UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO	
09/998,864	11/30/2001	George Alexander Reid Wilkie	2705-202	6856	
20575 75	90 01/10/2006		EXAMINER		
MARGER JOHNSON & MCCOLLOM, P.C.			SHAH, CHIRAG G		
PORTLAND, (	ISON STREET, SUITE 4 DR 97204	ART UNIT	PAPER NUMBER		
,			2664		
			DATE MAILED: 01/10/2000	6	

Please find below and/or attached an Office communication concerning this application or proceeding.

		Appli	cation No.	Applicant(s)		
Office Action Summary			8,864	WILKIE ET AL.		
			iner	Art Unit		
		Chiraç	g G. Shah	2664		
Period fo	The MAILING DATE of this communicator Reply			vith the correspondence a	ddress	
A SH WHIC - Exte after - If NC - Failu Any	ORTENED STATUTORY PERIOD FOR CHEVER IS LONGER, FROM THE MAI nations of time may be available under the provisions of SIX (6) MONTHS from the mailing date of this community period for reply is specified above, the maximum statute to reply within the set or extended period for reply will reply received by the Office later than three months after the part of the provision of the p	LING DATE OF 37 CFR 1.136(a). In r ication. ory period will apply a l, by statute, cause the	THIS COMMUN no event, however, may a and will expire SIX (6) MO a application to become A	ICATION. Treply be timely filed NTHS from the mailing date of this ABANDONED (35 U.S.C. § 133).		
Status						
1)⊠ 2a)□ 3)□	Responsive to communication(s) filed This action is <b>FINAL</b> . 2b Since this application is in condition for closed in accordance with the practice	)⊠ This action r allowance exc	is non-final. ept for formal ma	•	e merits is	
Dispositi	ion of Claims					
5)	Claim(s) 1-34 is/are pending in the app 4a) Of the above claim(s) is/are Claim(s) is/are allowed. Claim(s) 1-34 is/are rejected. Claim(s) is/are objected to. Claim(s) are subject to restriction ion Papers The specification is objected to by the E The drawing(s) filed on is/are: a Applicant may not request that any objection Replacement drawing sheet(s) including the E The oath or declaration is objected to be	withdrawn from and/or election and/or election examiner.  accepted or on to the drawing e correction is re	on requirement.  or b) \( \sim \) objected to  (s) be held in abeya  quired if the drawin	ance. See 37 CFR 1.85(a). g(s) is objected to. See 37 C	• •	
Priority ι	ınder 35 U.S.C. § 119					
<ul> <li>12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).</li> <li>a) All b) Some * c) None of:</li> <li>1. Certified copies of the priority documents have been received.</li> <li>2. Certified copies of the priority documents have been received in Application No.</li> <li>3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).</li> <li>* See the attached detailed Office action for a list of the certified copies not received.</li> </ul>						
2) 🔲 Notic 3) 🔲 Infor	t(s) e of References Cited (PTO-892) e of Draftsperson's Patent Drawing Review (PTC mation Disclosure Statement(s) (PTO-1449 or PT r No(s)/Mail Date		Paper No	Summary (PTO-413) (s)/Mail Date Informal Patent Application (PT 	O-152)	

Art Unit: 2664

## **DETAILED ACTION**

## Claim Rejections - 35 USC § 103

- 1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 2. Claim 1, 4-10, 12-15, 18-22, 25-28, 31, and 33-34 rejected under 35 U.S.C. 103(a) as being unpatentable over Giroux et al. (U.S. Patent No. 6,370,116), hereinafter Giroux in view of Sitaraman et al. (U.S. Patent No. 6,427,174), hereinafter Sitaraman.

Regarding claim 1, Giroux discloses of an network device [switching node 14, see fig. 1 and claim 1], comprising:

an input port to receive input data [a switching node includes a input port for receiving packet, see fig. 1 and claim 1];

a transmission port to transmit data at a transmission rate [the incoming data packets having a committed information rate (CIR) are accepted an delivered at the respective rate, see claim 1 and col. 3, lines 50-67];

a detector [access point 14 of fig. 1 is able to distinguish each information packet having either a committed delivery class or non-committed delivery class, see col. 4, lies 19-37];

a controller to set the maximum transmission rate equal to the first traffic rate when the detector detects a committed deliver class packet [the access/switching node inherently includes a controller since the switching node is able to accept and set forward each data packet having a CIR delivery status with a CIR Rate, see claim 1 and col. 3, lines 50-67].

Giroux fails to explicitly disclose of a detector detecting a committed delivery class corresponds to real-time input data. Sitaraman discloses in col. 7, lines 24-38 that if a subscriber requires video data or any data that needs to be presented in real-time, the router being a switching node will recognize the real-time video data and give a committed access rate. This clearly suggests that committed information rate is set for real-time data such as video. Therefore, it would have been obvious to one of ordinary skills in the art at the time of the invention to modify the teachings of Giroux to include that information packets having committed information rates correspond to real-time data such as video as disclosed by Sitaraman. One is motivated as such in order to provide quality of service and maintain a network bandwidth management scheme that is consistently applied.

Regarding claim 10, Giroux discloses of an network device [switching node 14, see fig. 1 and claim 1] including a method, comprising:

means [access point/switching node 14, fig. 1] for detecting traffic in a network device [access point 14 of fig. 1 is able to distinguish by detecting each information packet as having either a committed delivery class or non-committed delivery class, see col. 4, lines 19-37]; and

means [the access/switching node inherently includes a controller] for reducing a maximum transmission rate to a first traffic rate in response to the real-time traffic [the access/switching node inherently includes a controller since the switching node is able to accept and set forward each data packet having a CIR delivery status with a CIR Rate, the rate may be reduced from max EIR of previous packet to CIR based on the packet status see claim 1 and col. 3, lines 50-67].

Giroux fails to explicitly disclose of a detector detecting a committed delivery class corresponds to real-time input data. Sitaraman discloses in col. 7, lines 24-38 that if a subscriber requires video data or any data that needs to be presented in real-time, the router being a switching node will recognize the real-time video data and give a committed access rate. This clearly suggests that committed information rate is set for real-time data such as video.

Therefore, it would have been obvious to one of ordinary skills in the art at the time of the invention to modify the teachings of Giroux to include that information packets having committed information rates correspond to real-time data such as video as disclosed by Sitaraman. One is motivated as such in order to provide quality of service and maintain a network bandwidth management scheme that is consistently applied.

Regarding claim 15, Giroux discloses of an network device [switching node 14, see fig. 1 and claim 1] including a method, comprising:

detecting traffic in a network device [access point 14 of fig. 1 is able to distinguish by detecting each information packet as having either a committed delivery class or non-committed delivery class, see col. 4, lines 19-37]; and

reducing a maximum transmission rate to a first traffic rate in response to the real-time traffic [the access/switching node inherently includes a controller since the switching node is able to accept and set forward each data packet having a CIR delivery status with a CIR Rate, the rate may be reduced from max EIR of previous packet to CIR based on the packet status see claim 1 and col. 3, lines 50-67].

Art Unit: 2664

Giroux fails to explicitly disclose of a detector detecting a committed delivery class corresponds to real-time input data. Sitaraman discloses in col. 7, lines 24-38 that if a subscriber requires video data or any data that needs to be presented in real-time, the router being a switching node will recognize the real-time video data and give a committed access rate. This clearly suggests that committed information rate is set for real-time data such as video.

Therefore, it would have been obvious to one of ordinary skills in the art at the time of the invention to modify the teachings of Giroux to include that information packets having committed information rates correspond to real-time data such as video as disclosed by Sitaraman. One is motivated as such in order to provide quality of service and maintain a network bandwidth management scheme that is consistently applied.

Regarding claim 22, Giroux discloses an article [software within the switching node 14 of fig. 1] containing machine readable code that, when executed, causes the machine to [switching node 14, see fig. 1 and claim 1]:

Detect traffic [access point 14 of fig. 1 is able to distinguish by detecting each information packet as having either a committed delivery class or non-committed delivery class, see col. 4, lines 19-37]; and

Reduce a maximum transmission rate to a first traffic rate in response to the real-time traffic [the access/switching node inherently includes a controller since the switching node is able to accept and set forward each data packet having a CIR delivery status with a CIR Rate, the rate may be reduced from max EIR of previous packet to CIR based on the packet status see claim 1 and col. 3, lines 50-67].

Art Unit: 2664

Giroux fails to explicitly disclose of a detector detecting a committed delivery class corresponds to real-time input data. Sitaraman discloses in col. 7, lines 24-38 that if a subscriber requires video data or any data that needs to be presented in real-time, the router being a switching node will recognize the real-time video data and give a committed access rate. This clearly suggests that committed information rate is set for real-time data such as video. Therefore, it would have been obvious to one of ordinary skills in the art at the time of the invention to modify the teachings of Giroux to include that information packets having committed information rates correspond to real-time data such as video as disclosed by Sitaraman. One is motivated as such in order to provide quality of service and maintain a network bandwidth management scheme that is consistently applied.

Regarding claim 25, Giroux discloses of an network device [switching node 14, see fig. 1 and claim 1] including a method, comprising:

monitoring a port electrically coupled to a *packet* source for data from the source [access point 14 of fig. 1 is able to monitor by detecting each information packet as having either a committed delivery class or non-committed delivery class, see col. 4, lines 1-18]; and

reducing a maximum transmission rate to a first traffic rate prior to real-time data being transmitted from the source [the access/switching node inherently includes a controller since the switching node is able to accept and set forward each data packet having a CIR delivery status with a CIR Rate prior to each data packet being transmitted from the source, see claim 1 and col. 3, lines 50-67]. Giroux fails to explicitly disclose of a detector detecting a committed delivery

Page 7

class corresponds to real-time input data. Sitaraman discloses in col. 7, lines 24-38 that if a subscriber requires video data or any data that needs to be presented in real-time, the router being a switching node will recognize the real-time video data and give a committed access rate. This clearly suggests that committed information rate is set for real-time data such as video. Therefore, it would have been obvious to one of ordinary skills in the art at the time of the invention to modify the teachings of Giroux to include that information packets having committed information rates correspond to real-time data such as video as disclosed by Sitaraman. One is motivated as such in order to provide quality of service and maintain a network bandwidth management scheme that is consistently applied.

Regarding claim 31, Giroux discloses of an network device [switching node 14, see fig. 1 and claim 1] including a method, comprising:

receiving a resource reservation request for committed information data to be transmitted along a path in a network [access point 14 of fig. 1 is able to receive transmit and route the requested packet having a committed delivery class packet along either a path in a network, based on defined rate limits for each class of information, see col. 4, lines 19-37 and claim 1];

reducing a maximum transmission rate to a first traffic rate [the access/switching node inherently includes a controller since the switching node is able to accept and set forward each data packet having a CIR delivery status with a CIR Rate, the rate may be reduced from max EIR of previous packet to CIR based on the packet status see claim 1 and col. 3, lines 50-67].

Giroux fails to explicitly disclose of a detector detecting a committed delivery class corresponds to real-time input data. Sitaraman discloses in col. 7, lines 24-38 that if a subscriber requires video data or any data that needs to be presented in real-time, the router being a switching node will recognize the real-time video data and give a committed access rate. This clearly suggests that committed information rate is set for real-time data such as video. Therefore, it would have been obvious to one of ordinary skills in the art at the time of the invention to modify the teachings of Giroux to include that information packets having committed information rates correspond to real-time data such as video as disclosed by Sitaraman. One is motivated as such in order to provide quality of service and maintain a network bandwidth management scheme that is consistently applied.

Regarding claim 4, Giroux discloses in col. 3, lines 50-60 that wherein the maximum transmission rate is between the first traffic rate (CIR) and a second traffic rate (EIR) as claim.

Regarding claim 5, Sitaraman discloses in col. 7, lines 30-38 wherein the real-time input data is voice data (voice data is any data that needs to be presented in approximately real-time).

Regarding claim 6, Sitaraman discloses in col. 7, lines 30-33 wherein the real-time input data is video data.

Regarding claim 7, Giroux discloses wherein the detector (within the switching node 14 of figure 1) detects a characteristic (status of information packet, see col. 3, lines 50-67) of the input data to identify the input data as committed information input data (see col. 3, lines 50-67 and claim 1). Giroux fails to explicitly disclose of a detector detecting a committed delivery

class corresponds to real-time input data. Sitaraman discloses in col. 7, lines 24-38 that if a subscriber requires video data or any data that needs to be presented in real-time, the router being a switching node will recognize the real-time video data and give a committed access rate. This clearly suggests that committed information rate is set for real-time data such as video. Therefore, it would have been obvious to one of ordinary skills in the art at the time of the invention to modify the teachings of Giroux to include that information packets having committed information rates correspond to real-time data such as video as disclosed by Sitaraman. One is motivated as such in order to provide quality of service and maintain a network bandwidth management scheme that is consistently applied.

Regarding claim 8, Giroux discloses wherein the detector (within the switching node 14 of figure 1) detects *committed information status* of input data by determining a source address [the packet will have been marked up-stream with a flag in compliance with a negotiated committed information rate, see col. 4, lines 52-60, the switching node 14 must inherently detects the committed information status flag upon stripping the header of the packet including source address]. Giroux fails to explicitly disclose of a detector detecting a committed delivery class corresponds to real-time input data. Sitaraman discloses in col. 7, lines 24-38 that if a subscriber requires video data or any data that needs to be presented in real-time, the router being a switching node will recognize the real-time video data and give a committed access rate. This clearly suggests that committed information rate is set for real-time data such as video. Therefore, it would have been obvious to one of ordinary skills in the art at the time of the invention to modify the teachings of Giroux to include that information packets having

Art Unit: 2664

committed information rates correspond to real-time data such as video as disclosed by Sitaraman. One is motivated as such in order to provide quality of service and maintain a network bandwidth management scheme that is consistently applied.

Regarding claim 9, Giroux discloses wherein the detector (within the switching node 14 of figure 1) detects committed information status of input data by determining a source port [the packet will have been marked up-stream with a flag in compliance with a negotiated committed information rate, see col. 4, lines 52-60, the switching node 14 must inherently detects the committed information status flag upon stripping the header of the packet including source address port]. Giroux fails to explicitly disclose of a detector detecting a committed delivery class corresponds to real-time input data. Sitaraman discloses in col. 7, lines 24-38 that if a subscriber requires video data or any data that needs to be presented in real-time, the router being a switching node will recognize the real-time video data and give a committed access rate. This clearly suggests that committed information rate is set for real-time data such as video. Therefore, it would have been obvious to one of ordinary skills in the art at the time of the invention to modify the teachings of Giroux to include that information packets having committed information rates correspond to real-time data such as video as disclosed by Sitaraman. One is motivated as such in order to provide quality of service and maintain a network bandwidth management scheme that is consistently applied.

Regarding claim 12, Giroux discloses wherein the means [inherently within the switching device 14 of figure 1 and col. 4, lines 18-37] for detecting further comprises a detector module [see col. 4, lines 18-37, fig. 1 and claim 1].

Regarding claim 13, Giroux disclose wherein the means for reducing a maximum transmission rate further comprises a controller [the access/switching node inherently includes a controller since the switching node is able to accept and set forward each data packet having a CIR delivery status with a CIR Rate, see claim 1 and col. 3, lines 50-67].

Regarding claim 14, Giroux discloses in col. 3, lines 50-67, figure 1 and claim 1wherein the means (access point 14 of figure 1) for detecting and the means for reducing a maximum transmission rate are included in one component.

Regarding claim 18, Giroux discloses in col. 3, lines 50-67 further comprises examining data as it passes through a network device (switching device 14 of figure 1) as claim.

Regarding claim 19, Giroux discloses in col. 3, lines 50-60 wherein the data further comprises packets.

Regarding claim 20, wherein detecting real-time traffic further comprises monitoring a port electrically coupled to a source of real-time data [access point 14 of fig. 1 is able to monitor by detecting each information packet as having either a committed delivery class or non-

committed delivery class, see col. 4, lines 1-18]. Giroux fails to explicitly disclose of a detector detecting a committed delivery class corresponds to real-time input data. Sitaraman discloses in col. 7, lines 24-38 that if a subscriber requires video data or any data that needs to be presented in real-time, the router being a switching node will recognize the real-time video data and give a committed access rate. This clearly suggests that committed information rate is set for real-time data such as video. Therefore, it would have been obvious to one of ordinary skills in the art at the time of the invention to modify the teachings of Giroux to include that information packets having committed information rates correspond to real-time data such as video as disclosed by Sitaraman. One is motivated as such in order to provide quality of service and maintain a network bandwidth management scheme that is consistently applied.

Regarding claim 21, wherein detecting real-time traffic further comprises reception of a resource request [access point 14 of fig. 1 is able to receive transmit and route the requested packet having a committed delivery class packet along either a path in a network, based on defined rate limits for each class of information, see col. 4, lines 19-37 and claim 1].

Regarding claim 26, Sitaraman discloses in col. 7, lines 30-38 wherein the real-time input data is voice data (voice data is any data that needs to be presented in approximately real-time).

Regarding claim 27, Sitaraman discloses in col. 7, lines 30-33 wherein the real-time input data is video data.

Regarding claim 28, wherein reducing a maximum transmission rate further comprises: receiving a signal from the source that data from that source is going to be transmitted [a packet of information is received at the access point including a committed status information, see col. 3, lines 50-67 and claim 1]. Giroux fails to explicitly disclose of a detector detecting a committed delivery class corresponds to real-time input data. Sitaraman discloses in col. 7, lines 24-38 that if a subscriber requires video data or any data that needs to be presented in real-time, the router being a switching node will recognize the real-time video data and give a committed access rate. This clearly suggests that committed information rate is set for real-time data such as video. Therefore, it would have been obvious to one of ordinary skills in the art at the time of the invention to modify the teachings of Giroux to include that information packets having committed information rates correspond to real-time data such as video as disclosed by Sitaraman. One is motivated as such in order to provide quality of service and maintain a network bandwidth management scheme that is consistently applied.

Regarding claim 33, wherein the first traffic rate is provided in the resource reservation request [access point 14 of fig. 1 is able to receive transmit and route the requested packet having a committed delivery class packet along either a path in a network, based on defined rate limits for each class of information, see col. 4, lines 19-37 and claim 1].

Regarding claim 34, wherein the first traffic rate is predetermined [access point 14 of fig. 1, the requested packet having a committed delivery class packet along a path is based on defined rate limits for each class of information, see col. 4, lines 19-37 and claim 1].

3. Claims 2, 3, 11, 16-17, 23-24, 29-30 and 32 rejected under 35 U.S.C. 103(a) as being unpatentable over Giroux in view of Sitaraman as applied to claim above, and further in view of Chien et al. (U.S. Patent No. 6,891,832), hereinafter Chien.

Regarding claim 2, Giroux in view of Sitaraman teaches of a network device for detecting a real-time input data and setting a first traffic rate. Giroux in view of Sitaraman fails to disclose wherein the network device includes a timer to track occurrences of real-time input data. Chien discloses in figure 5 and col. 12, lines 28-35 that a router or a switch includes a timer for maintaining interval and timer count values, detecting real-time set-up or disconnect signals. Therefore, it would have been obvious to one of ordinary skills in the art at the time of the invention to include into Giroux in view of Sitaraman's invention the features of a switching node including a timer as taught by Chien. One is motivated as such in order to improve network performance by utilizing and allocating the bandwidth rate based on real-time traffic non-real time traffic application.

Regarding claim 3, Giroux in view of Sitaraman discloses of a network device that sets the rate upon detecting a real-time input data. Giroux in view of Sitaraman fails to disclose of wherein the controller increases the traffic rate above the first traffic rate when the timer expires. Chien discloses in figure 5 and col. 12, lines 28-35 that a router or a switch includes a timer for maintaining interval and timer count values, detecting real-time set-up or disconnect signals. Thus, clearly suggesting that when the real-time interval disconnects and applying Giroux in

Art Unit: 2664

view of Sitaraman, the next packet may be a bursty traffic with an EIR status rate assuring that the EIR bursty rate increases the traffic rate from CIR. Therefore, it would have been obvious to one of ordinary skills in the art at the time of the invention to include into Giroux in view of Sitaraman's invention the features of a switching node including a timer as taught by Chien.

Page 15

One is motivated as such in order to improve network performance by utilizing and allocating

the bandwidth rate based on real-time traffic non-real time traffic application.

Regarding claims 11, 16, 23, 29 and 32, Giroux discloses in col. 3, lines 50-67 and col. 4, lines 52-60 that an access point includes a means for allowing the maximum transmission rate to exceed the first rate if the packet status is EIR. Giroux in view of Sitaraman discloses of a network device that sets the rate upon detecting a real-time input data. Giroux in view of Sitaraman fail to disclose wherein the network device further comprises a means for detecting a cessation of real-time traffic. Chien discloses in figure 5 and col. 12, lines 28-35 that a router or a switch includes a timer for maintaining interval and timer count values, detecting real-time set-up or disconnect signals. Therefore, it would have been obvious to one of ordinary skills in the art at the time of the invention to include into Giroux in view of Sitaraman's invention the features of a switching node including a timer as taught by Chien. One is motivated as such in order to improve network performance by utilizing and allocating the bandwidth rate based on real-time traffic non-real time traffic application.

Regarding claims 17 and 24, Giroux in view of Sitaraman discloses of a network device that sets the rate upon detecting a real-time input data. Giroux in view of Sitaraman fail to disclose wherein detecting a cessation of real-time traffic further comprises monitoring a timer for expiration, wherein the timer is reset upon each occurrence of real-time data. Chien discloses in figure 5 and col. 12, lines 28-35 that a router or a switch includes a timer for maintaining interval and timer count values, detecting real-time set-up or disconnect signals. Thus, the timer logs interval values and inherently resets upon disconnect signals to restart detecting real-time interval. Therefore, it would have been obvious to one of ordinary skills in the art at the time of the invention to include into Giroux in view of Sitaraman's invention the features of a switching node including a timer as taught by Chien. One is motivated as such in order to improve network performance by utilizing and allocating the bandwidth rate based on real-time traffic non-real time traffic application.

Regarding claim 30, Giroux discloses in col. 3, lines 50-67 wherein the method further comprises receiving a signal from a source indicating that the source (committed information) has ceased transmission of the data [the first packet comes in with a committed information rate status and then when a second packet comes in with a non-committed information status from the source indicates that the transmission of committed information status packet has been ceased, see col. 3, lines 50-67 and claim 1]. Giroux fails to explicitly disclose of a detector detecting a committed delivery class corresponds to real-time input data. Sitaraman discloses in col. 7, lines 24-38 that if a subscriber requires video data or any data that needs to be presented in real-time, the router being a switching node will recognize the real-time video data and give a

committed access rate. This clearly suggests that committed information rate is set for real-time data such as video. Therefore, it would have been obvious to one of ordinary skills in the art at the time of the invention to modify the teachings of Giroux to include that information packets having committed information rates correspond to real-time data such as video as disclosed by Sitaraman. One is motivated as such in order to quality of service and maintain a network bandwidth management scheme that is consistently applied.

## Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chirag G. Shah whose telephone number is 571-272-3144. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin can be reached on 571-272-3134. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

cgs January 6, 2006

Chirag Shah Patent Examiner, AU 2664